



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/196,836	11/20/1998	GALEN C. HUNT	3382-51286	9594

26119 7590 08/25/2004

KLARQUIST SPARKMAN LLP
121 S.W. SALMON STREET
SUITE 1600
PORTLAND, OR 97204

EXAMINER

PATEL, HARESH N

ART UNIT	PAPER NUMBER
----------	--------------

2154

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/196,836

Applicant(s)

HUNT, GALEN C.

Examiner

Haresh Patel

Art Unit

2154

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 1998.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-56 is/are pending in the application.
- 4a) Of the above claim(s) 29-56 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 6/17/2004, 5/26/2004, 5/21/2004, 11/24/2003, 6/30/2003, 10/4/1999
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-56 are presented for examination. Claims 29-56, are withdrawn, as per applicant's election of Group I (claims 1-28), paper 5/26/2004. Hence, applicant is requested to cancel claims 29-56.

Priority

2. Applicant's claim for domestic priority under 35 U.S.C. 119(e) is acknowledged.

Election/Restrictions

3. In response to the applicant's arguments, paper 5/26/2004, i.e., "First, the examiner has alleged that groups I and III are unrelated to group II. The examiner writes, Inventions are unrelated if it can be shown that they are not disclosed as capable of use together and they have different modes of operation, different functions, or different effects (MPEP 806.04, MPEP 808.01). The examiner has made no such showing. In fact, the data structure of claim 29 (in Group II) and the method of claim 36 (in Group III) are disclosed as capable of use together at paragraph 82-87 of the application. Second, Applicant proposes revised claim groups that are believed to more appropriately group the claims according to their status in the art. Applicant combines groups II and III. These claims each involve a reference to instrumentation and a reference to an interface." Examiner respectfully disagrees. Claims of group II and group III, involving a reference to instrumentation and a reference to an interface does not mean that Group II and Group III cannot be restricted. Group II, i.e., claims 29-35, are implementing a data structure having fields of data, and in which several data fields are implemented, and each data

Art Unit: 2154

field handles different types of data, and each data field is implemented differently to represent specific operation. Class 707, subclass 100, is appropriate for Group II, because this class/subclass deals with organizing / manipulating / relating data and fields, as disclosed in claims of Group II. Group III, i.e., claims 36-56, have a very clear different purpose for implementing with regards to Group II. For example, Group III implements communication between units of an application program through a call stack. Class 719, subclass 312 (earlier Class 709, subclass 312), is appropriate for Group III, because this class/subclass deals with implementing software units of a software application handling call, as disclosed in claims of Group III. Therefore, examiner believes that the restriction of Groups II and III are proper.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

4. Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 6, 9, 10, 12, 25, 32 and 35 of U.S. Patent No. 6,263,491. Although the conflicting claims are not identical, they are not

Art Unit: 2154

patentably distinct from each other because the limitations of independent claims 1, 2, 16, 17, 20 and 21 is similar to claims 1,12, 25, 32 and 35 of U.S. Patent No. 6,263,491. The limitation “assessing a relationship of an interface to a unit” is equivalent to the accessing the relations ship of standard interfaces to an application units and structural metadata of the claims 1,12, 25, 32 and 35. The limitations of dependent claims 3-15, 18, 19, 22-28 is similar to claims 2, 4, 6, 9 and 10 of U.S. Patent No. 6,263,491.

5. Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 5, 11, 13 and 17 of U.S. Patent No. 6,629,123. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of independent claims 1, 2, 16, 17, 20 and 21 is similar to claims 1 and 11 of U.S. Patent No. 6,629,123. The limitation “assessing a relationship of an interface to a unit” is equivalent to the accessing the relations ship of standard interfaces to an application units and structural metadata of the claims 1,12, 25, 32 and 35. The limitations of dependent claims 3-15, 18, 19, 22-28 is similar to claims 2, 4, 5, 13 and 17 of U.S. Patent No. 6,629,123.

6. Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 4, 9, 12, 25 of U.S. Patent No. 6,381,628. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of independent claims 1, 2, 16, 17, 20 and 21 is similar to claim 1 of U.S. Patent No. 6,381,628. The limitation “assessing a relationship of an interface to a unit” is equivalent to the accessing the relations ship of standard interfaces to an application units and structural metadata of the claims 1,12, 25,

Art Unit: 2154

32 and 35. The limitations of dependent claims 3-15, 18, 19, 22-28 is similar to claims 4, 9, 12 and 25 of U.S. Patent No. 6,381,628.

7. Claims 1-28 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 2, 4, 9, 10, 11, 18, 23, 30, 31, 36, 48, 53, 58, 61 of U.S. Patent No. 6,381,735. Although the conflicting claims are not identical, they are not patentably distinct from each other because the limitations of independent claims 1, 2, 16, 17, 20 and 21 is similar to claims 1, 23, 48, 53, 58, 61 of U.S. Patent No. 6,381,735. The limitation "assessing a relationship of an interface to a unit" is equivalent to the accessing the relations ship of standard interfaces to an application units and structural metadata of the claims 1,12, 25, 32 and 35. The limitations of dependent claims 3-15, 18, 19, 22-28 is similar to claims 2, 4, 9, 10, 11, 18, 30, 31 and 36 of U.S. Patent No. 6,381,735.

Specification

8. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

The present title is not sufficient for proper classification of the claimed subject matter.

9. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should

Art Unit: 2154

include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract is objected. Some of the informalities are:

The abstract should contain information based on the claimed subject matter.

Correction is required. See MPEP § 608.01(b).

Information Disclosure Statement

10. An initialed and dated copies of Applicant's IDS form 1449, Paper No. 6/17/2004, 5/26/2004, 5/21/2004, 11/24/2003, 6/30/2003, 10/4/1999, 2/22/1999, are attached to the instant Office action. Applicant is requested to submit the missing reference "R.R. Heisch, "Trace-directed program restructuring for AIX executables," IBM J. Res. Develop., Vol. 38, No. 5, September 1994", of IDS, 2/22/1999.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

11. Claims 1, 3-16, 18-20, 22-27, are software per se that is not tangibly embodied on a computer readable medium and therefore lacks a practical application because it alone cannot produce its intended outcome.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1, 2, 14-17, 20, 21, 23 and 26, are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art too use and/or make the invention.

13. The specification does not contain subject matter containing any software or hardware to implement limitation “assessing a relationship of an interface to a unit”, as cited in claims 1, 2, 16, 17, 20 and 21. For one skilled in the art, “unit” can be a hardware constituent. Also, it is not apparent how “assessing a relationship of an interface to a unit” and “wherein a software program comprises plural units, and wherein a unit exposes one or more interfaces” are related. Also, the specification does not contain subject matter containing any software or hardware to implement limitation “determining if the unit that exposes the interface is known by checking a data structure comprising one or more entries, wherein an entry maps an interface to a unit identity”, as cited in claims 1, 2, 16, 17, 20 and 21. Also, it is not apparent how “determining if the unit that exposes the interface is known by checking a data structure comprising one or more entries” and “wherein an entry maps an interface to a unit identity;” are related. The specification is objected to because it does not contain subject matter containing any

Art Unit: 2154

software or hardware to implement limitation “determining if the unit that exposes the interface is known”. Also, it is not apparent to whom the interface is not known.

14. The specification does not contain subject matter containing any software or hardware to implement limitation “detecting a communication passing through the interface”, as cited in claim 14. For one skilled in the art, “communication” can be e-mail. Also, it is not apparent how a communication is detected.

15. The specification does not contain subject matter containing any software or hardware to implement limitation “receiving a call to a unit activation function”, as cited in claim 15. For one skilled in the art, “call” can be a phone call. Also, it is not apparent how a call is received.

16. The specification does not contain subject matter containing any software or hardware to implement limitations “the interface wrapper stores a reference to instrumentation” and “providing to a client unit”, as cited in claims 20. For one skilled in the art, “instrumentation” can be combination of multiple instruments. Also, it is not apparent what type of reference is made to the instrumentation. For one skilled in the art, “unit” can be a hardware constituent.

17. The specification does not contain subject matter containing any software or hardware to implement limitations “the reference to instrumentation” and “instrumentation functions”, as cited in claim 23. For one skilled in the art, “instrumentation” can be combination of multiple instruments. Also, it is not apparent what type of reference is made to the instrumentation.

18. The specification does not contain subject matter containing any software or hardware to implement limitations “measuring the size of the communication using the

Art Unit: 2154

instrumentation” and “invocation comprises a communication from the client”, as cited in claim 26. For one skilled in the art, “communication” can be e-mail.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claims 1, 2, 8, 10, 13, 16, 17, 20-22 and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

20. Claims 1, 2, 16, 17, 20 and 21, recite the limitations “the unit that exposes the interface is not known” and “the entry maps the interface”. There is insufficient antecedent basis for this limitation in the claim. It is not apparent which interface / entry is referred by “the interface”/ “the entry” of these limitations.

21. Claim 8, recites the limitation “that the interface does not have an interface wrapper”. There is insufficient antecedent basis for this limitation in the claim. It is not apparent which interface is referred by “the interface” of the limitation.

22. Claim 10, recites the limitations “the interface is not known” and “the interface with the created interface wrapper”. There is insufficient antecedent basis for this limitation in the claim. It is not apparent which interface is referred by “the interface” of these limitations.

23. Claim 13, recites the limitation “the entry maps the interface”. There is insufficient antecedent basis for this limitation in the claim. It is not apparent which entry is referred by “the entry” of this limitation.

Art Unit: 2154

24. Claim 22, recites the limitations “the interface wrapper” and “the interface”.

There is insufficient antecedent basis for this limitation in the claim. It is not apparent which interface wrapper is referred by “the interface wrapper” of this limitation. It is not apparent which interface is referred by “the interface” of this limitation.

25. Claim 26, recites the limitations “the interface wrapper” and “the interface”.

There is insufficient antecedent basis for this limitation in the claim. It is not apparent which interface wrapper is referred by “the interface wrapper” of this limitation. It is not apparent which interface is referred by “the interface” of this limitation.

Claim Rejections - 35 USC § 102

26. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

27. Claims 1-28 are rejected under 35 U.S.C. 102(b) as being anticipated by Cugin: Efficient Instrumentation for Inter-Component Communication Analysis, Hunt et. al. February 1997 (Hereinafter Hunt).

28. As per claims 1 and 2, Hunt teaches a method for assessing a relationship of an interface to a unit (e.g., lines 11 – 19, section 1, page 1), wherein a software program comprises plural units (e.g., lines 25 – 36, section 1, page 1), and wherein a unit exposes one or more interface (e.g., lines 15 – 26, section 2.1, page 2), the method comprising:

Art Unit: 2154

detecting a reference to an interface of a unit of software (e.g., lines 1- 9, section 2.3, page 3), determining if the unit that exposes the interface is known by checking a data structure comprising one or more entries (e.g., lines 1 – 6, section 2.2, page 3), wherein an entry maps an interface to a unit identity (e.g., lines, 22 – 28, section 2.3, page 3); if the unit that exposes the interface is not known (e.g., lines 1- 9, section 2.3, page 3), discovering the unit identity of the unit that exposes the interface (e.g., lines 28 – 36, section 2.2, page 3), adding an entry to the data structure (e.g., lines 1-6, section 2.2, page 3), wherein the entry maps the interface to the discovered unit identity (e.g., figure 2, section 2.2, page 3), and performing an operation based upon an entry of the data structure (e.g., lines 24 – 32, section 2.2, page 3).

29. As per claim 3, Hunt teaches the following:

the step of detecting comprises: noting one or more return parameters from a called function (e.g., lines 1 – 10, section 2.2, page 3), and parsing the one or more return parameters to detect a reference to an interface (e.g., lines 1 –10, section 2.2, page 3).

30. As per claim 4, Hunt teaches the following:

the called function is a unit creation function (e.g., lines 32 – 46, section 3, page 5).

31. As per claim 5, Hunt teaches the following:

the step of detecting comprises: noting one or more outgoing parameters to a called function (e.g., lines 1- 9, section 2.3, page 3), and parsing the one or more

Art Unit: 2154

outgoing parameters to detect a reference to an interface (e.g., lines 1- 9, section 2.3, page 3).

32. As per claim 6, Hunt teaches the following:

wherein the data structure is a hash table (e.g., lines 1 – 6, section 2.2, page 3), and the step of determining comprises: hashing the detected reference (e.g., lines 1 – 6, section 2.2, page 3), if the detected reference hashes to a unit identity (e.g., lines 1 – 9, section 2.2, page 3), returning a value that indicates the unit identity of the unit that exposes the interface is known (e.g., lines 1 – 9, section 2.2, page 3), and if the detected reference does not hash to a unit identity (e.g., lines 1 – 9, section 2.2, page 3), returning a value that indicates the unit identity of the unit that exposes the interface is not known (e.g., lines 1 – 9, section 2.2, page 3).

33. As per claim 7, Hunt teaches the following:

the data structure is a hash table (e.g., lines 1-6, section 2.2, page 3), wherein the step of adding an entry comprises: creating a new entry in the hash table (e.g., lines 1-6, section 2.2, page 3), wherein the new entry associates the interface with the discovered unit identity (e.g., lines 1-6, section 2.2, page 3).

34. As per claims 8 and 9, Hunt teaches the following:

an interface wrapper stores data comprising a unit identity (e.g., lines 1-6, section 2.2, page 3), wherein the data structure is a hash table for associating interfaces with interface wrappers (e.g., lines 1-6, section 2.2, page 3), and wherein the step of

Art Unit: 2154

determining comprises: hashing the detected reference (e.g., lines 26 – 38, section 2.2, page 3), if the detected reference hashes to an interface wrapper (e.g., lines 26 – 38, section 2.2, page 3), returning a reference to the interface wrapper (e.g., lines 1 – 9, section 2.2, page 3), and if the detected reference does not hash to an interface wrapper (e.g., lines 34 – 42, section 2.2, page 3), returning a value indicating that the interface does not have an interface wrapper (e.g., lines 1 – 9, section 2.2, page 3).

35. As per claim 10, Hunt teaches the following:

an interface wrapper stores data comprising a unit identity (e.g., lines 1 – 9, section 2.2, page 3), wherein the data structure is a hash table for associating interfaces with interface wrappers (e.g., lines 1 – 9, section 2.2, page 3), the method further comprising: if the unit that exposes the interface is not known (e.g., lines 1 – 9, section 2.2, page 3), creating an interface wrapper (e.g., lines 1 – 9, section 2.2, page 3), wherein the interface wrapper stores data comprising the discovered unit identity (e.g., lines 1 – 6, section 2.2, page 3) and during the step of adding an entry (e.g., lines 1 – 6, section 2.2, page 3), creating a new entry in the hash table (e.g., lines 1-6, section 2.2, page 3), wherein the new entry associates the interface with the created interface wrapper (e.g., lines 1-6, section 2.2, page 3).

36. As per claim 11, Hunt teaches the following:

a local variable stores data comprising the unit identity of the unit from which the detected reference originated (e.g., lines 2 – 11, section Component Temporal Locality, page 8), and wherein the step of discovering the unit identity comprises noting the value

Art Unit: 2154

stored in the local variable (e.g., lines 2 – 11, section Component Temporal Locality, page 8).

37. As per claim 12, Hunt teaches the following:

an instrumentation system provides the unit identity of the unit from which the detected reference originated (e.g., lines 1 – 9, section 2.2, page 3).

38. As per claim 13, Hunt teaches the following:

if the unit that exposes the interface is known (e.g., lines 1 – 9, section 2.2, page 3), verifying the unit identity of the unit that exposes the interface (e.g., lines 22 - 28, section 2.2, page 3), returning and overwriting an entry of the data structure (e.g., lines 22 – 28, section 2.2, page 3), wherein the entry maps the interface to the verified unit identity (e.g., lines 36 – 44, section 2.2, page 3).

39. As per claim 14, Hunt teaches the following:

the step of performing an operation based upon an entry of the data structure comprises (e.g., lines 36 – 44, section 2.2, page 3): detecting a communication passing through the interface (e.g., lines 22 – 28, section 2.2, page 3); measuring the size of the communication (e.g., lines 22 – 28, section 2.2, page 3), determining the unit identity of the unit that exposes the interface from the entry of the data structure (e.g., lines 1-9, section 2.3, page 3), associating the measured size with the unit that exposes the interface (e.g., lines 36 – 44, section 2.3, page 3).

Art Unit: 2154

40. As per claim 15, Hunt teaches the following:

the step of performing an operation based upon an entry of the data structure comprises (e.g., lines, 21 – 29, section 2.1, page 2): receiving a call to a unit activation function from a client unit (e.g., lines 4 – 12, section 2.1, page 2); determining the unit identity of the client unit from the entry of the data structure (e.g., lines 4 – 12, section 2.1, page 2), classifying the unit to be activated based upon the unit identity of the client unit (e.g., lines 1 – 15, section 2.1, page 2), resulting in a classifier (e.g., lines 3 – 12, section 2.1, page 2); determining a location in a distributed computing environment using the classifier (e.g., lines 3 – 12, section 3, page 5); and routing the call to the location (e.g., 46 – 58, section 3, page 5).

41. As per claims 16-28, the claims are rejected for the same reasons as claims 1-15 above.

Conclusion

42. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See Form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Haresh Patel whose telephone number is 703-605-5234. The examiner can normally be reached on Monday, Tuesday, Thursday and Friday from 10:00 am to 8:00 pm.

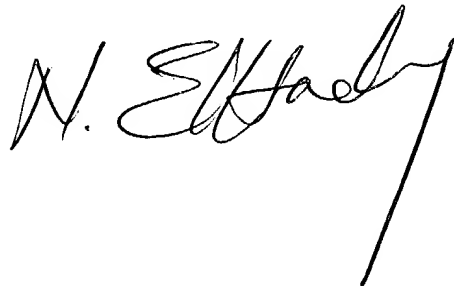
Art Unit: 2154

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 703-305-8498. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Haresh Patel

August 18, 2004.

A handwritten signature in black ink, appearing to read "N. El Hadj", with a long, straight vertical line extending downwards from the end of the signature.